Ch #12 136

An Essay on Acute Peritonitis

Passed March 24 1825

by Gustavus B. Campbell of Virginia

& when
greater
ther be
over it
ces an i
to ment
been obse
throughou
of the pe
the onse
ses the
evident
ed; & ag
hardly
deviation
ticed he
The lo
domen
the tena
degree, T

Peritonitis is an inflammatory affection of the Peritoneum; that serous membrane which affords a lining to the parietes of the abdomen, as well as an exterior coat & a means of attachment to its viscera. It is, also, attended by general febrile symptoms; & it has, therefore, all the essential features, which entitle a disease to a place in the Order Phlegmasiæ & Class Pyrexiæ of Cullen.

Peritonitis is divided into the Acute & the Chronic. It is the Acute species, that constitutes the subject of this Thesis; & my remarks will be restricted to that form of the disease, to which both sexes are rendered liable by the operation of common causes.

History of Acute Peritonitis. An attack of Acute Peritonitis usually commences with rigors. When reaction takes place, there is fever, marked by thirst; a dry state of the tongue & fauces; a pulse, accelerated, corded, & contracted. The patient soon feels a considerable degree of pain & heat in the abdomen;

intolerable
beats from
thirty, st
sickeness
tient cann
back, m
dry & hot
vomiting,
The face
The tongu
The appe
less, & ge
The st
constant
pieneco.
unnatura
bar. The
inclinati
feet.
toms are
of pain
almost c
so rapid

& when pressure is made on that part, manifests a greater or lesser degree of tenderness, which may either be limited to a part of the abdomen, or spread over it universally. Though the tongue & fauces are in general dry, as already stated, it is proper to mention, that in some rare instances, they have been observed to retain their natural moisture throughout the course of the disease. The state of the pulse also, is subject to great variety at the onset of the disease: while in most cases, it possesses the character of inflammatory action, to a very evident degree; in others, it is scarcely disturbed; & again, in others it is so low, as to be hardly perceptible. The cases which present these deviations of the pulse, will be particularly noticed hereafter.

The local uneasiness increases rapidly, & the abdomen swells. Within twelve or twenty four hours, the tenderness of the abdomen is raised to such a degree, that the weight of the bed-clothes is then

coffee gr
cold, clam
countenan
passed u
cided b
before the

— A
On dissec
of the Pe
anterior.
teries are
there is
of inflam
canal, on
has inve
also. Th
are mu
hane. T
ther by
fused in
agulate
are but
toms, cl

intolerable. The abdomen is now tense. The pulse beats from a hundred & twenty, to a hundred & thirty strokes in a minute. The respiration much quickened. The strength, much depressed. The patient cannot bear the least motion; but lies on his back, with the knees drawn up. The skin is dry & hot; though in instances of much nausea & vomiting, or of great pain, it is occasionally damp. The face is flushed, & expresses anxiety. The eyes are red. The tongue is white, as well as dry. The thirst is great. The appetite is diminished. And the patient is restless, & gets but little sleep.

The Stomach, in most cases, is much affected; & a constant sickness, with a vomiting of bile, is experienced. — The intestines, sometimes costive; at others, preternaturally loose; are at others still, perfectly regular. The bladder, also, is affected; & there is a constant inclination to pass urine, attended however with little effect.

As the disease advances, the symptoms are all aggravated. At length, a total cessation of pain suddenly takes place; an omen, which indicates, almost certainly, a fatal issue. The pulse sinks; but moves so rapidly as not to be counted. A dark matter, like

the Peritoneum

Prognosis

abdomen s

either of ef

on the conte

comes fuller,

ration, ease

ally; the p

ells, affected

disease.

Diagn

by the abs

the lower pa

sustaining

It is distin

by the pleu

& especiall

tonitis, ab

drawn up

Causes

to Perito

which reg

lors, shoem

coffee grounds, is ejected from the stomach by singultus. Cold, clammy sweats break out. The extremities are cold. The countenance is collapsed & haggard. The Urine & fæces are passed involuntarily. And difficult respiration is succeeded by the fatal event, which usually takes place before the eighth day.

– Appearances on Dissection –

On dissection, the marks of inflammation appear, on every part of the Peritoneum; with the exception, as has been stated, of the anterior. The Peritoneum is thicker, & less transparent. It's arteries are injected with red blood, in most cases; but occasionally, there is found no vestige of the kind. Commonly, there are no traces of inflammation in the abdominal muscles: in the intestinal canal, on the contrary, it is sometimes seen, that the inflammation has involved, not only the muscular, but the more interior coats also. The sides of this canal, & the duplicatures of Peritoneum, are much thickened by extravasation into their cellular membrane. The viscera of the abdomen are agglutinated to one another by coagulating lymph. A brownish fluid, like serum, is effused into the Peritoneal cavity; & has mixed with it, shreds of coagulating lymph, & sometimes pus. Marks of gangrene however are but seldom visible. These appearances, independently of symptoms, clearly shew that the disease is an inflammation of

Acute Peri
abdomen;
alone or c
sequence of

The proper
much disp
the large em
the spirits
height of
appears to
disease, re
tion.

The plan
more stro
it in mo
its more
ful sanc
sor of the c
sity of c

the Peritoneum.

Prognosis. — This is unfavorable, when the pain in the abdomen suddenly ceases; the pulse sinks; & there is evidence either of effusion, or of gangrene. The following appearances, on the contrary, are to be regarded as favorable. The pulse becomes fuller, softer & less frequent; the skin, moist & cool; the respiration, easier; the pain & tension of the abdomen, diminished gradually; the patient able to maintain a sitting posture; & the bowels, affected with a gentle diarrhoea towards the close of the disease.

Diagnosis. Peritonitis is distinguished from Enteritis; by the absence of that tenesmus, which exists in Enteritis, when the lower part of the intestines are inflamed; & by the local pain sustaining no relief from fæcal evacuations.
It is distinguished from Colic; by the absence of tormina; by the pain being augmented, rather than abated, by pressure; & especially, by the difference of posture; the patient, in Peritonitis, always choosing to lie on his back, with his knees drawn up; & in Colic, on his abdomen. —

Causes. among the causes which give a predisposition to Peritonitis, are, habits of intemperance; occupations which require the body to be habitually bent, as that of taylors, shoemakers & wash women; & a habitual exposure to cold.

Venesection
sidered a
its employ
it produce
tunt. Th
stage is a
by which
The justic
forcibly, by t
the pulse
debility, p
moved. If
judging o
gard to
portion
ed then en
by the de
toms.
If the pa
of blood.
very sensi
provement
peated

Acute Peritonitis is excited by acts of violence, done to the abdomen; but oftenest, by cold applied for some time, either alone or combined with moisture. Thus it may be the consequence of sleeping either in damp sheets or on the ground.

Treatment

The proper treatment of Peritonitis has been a subject for much dispute. The Medical School of England, recommend the large employment of Opiates. Dr. Brenan of Dublin employs the Spirits of Turpentine, in Puerperal Peritonitis, at the very height of inflammation. While others, selecting a plan, which appears to be obviously deduced from the pathology of the disease, rely for its cure chiefly on abundant depletion.

The plan of treatment now to be detailed, is to myself more strongly recommended than any other: not only, is it in my own opinion well suited to the case; but in its more important points at least, it derives a powerful sanction from the experience of the present Professor of the Institutes & Practice of Physic in the University of Pennsylvania.

Topical B
he mourned
applied to
ally, a libe
very useful
ought to b
been somew
tional effec
ly removed
that the te
any serious
humilling
the kind,
tained fro
Purgat
minister a
bowels gen
gr. XX or e
an infusion
ministered
have been
ject the
ministered

Venesection. In acute Peritonitis, the lancet is to be considered as the patient's sheet-anchor; & in the extent of its employment, it is to be regulated by the effects which it produces on the disease, & on the constitution of the patient. The appearance of debility existing in the early stage is deceptive, & depends on the violence of the attack, by which the powers of the system are oppressed.

The justice of this remark will be illustrated satisfactorily, by the effect of a liberal detraction of blood; as the pulse will then be found to rise, & the apparent debility, previously existing, will be proportionally removed. It is the advice of Dr. Nathaniel Chapman, that in judging of the propriety of Venesection, we should pay no regard to the pulse, which is always depressed in proportion to the violence of the disease. I should be governed then entirely, by the existence of the stage of excitement, & by the degree of severity in the local pain & other symptoms.

If the patient be an adult, take at first ℥XX or ℥XXX of blood. If this detraction should produce on the symptoms no very sensible effect; or if that effect were evidently an improvement, the operation may be advantageously repeated within a few hours.

has a tend
towards e
have combe
not tend
propriety o
ter of disp
dently of o
measure e
which it
Peritonitis,
ing it to T
gard to the
of Dr. Arm
abdomen,
ly proceed
the opinat
uble, by b
or three
Emollient
open; but
they may
Warm
soothing;

Topical Blood-letting - Topical bloodletting is next to be recurred to; & is performed by means of leeches or of cups applied to the abdomen. As in local inflammations generally, a liberal detraction of blood in this way will be very useful. It has been conceived that this measure ought to be deferred, until the pain of the abdomen has been somewhat diminished; or at least, until the constitutional effects of the local derangement have been partially removed, by Venesection. But I should not suppose that the trivial irritation of the measure, would produce any serious effect on the general excitement; & I should be unwilling, for the sake of preventing a slight effect of the kind, to forego the probable advantage to be obtained from an early use of the remedy.

Purgatives. Immediately after Venesection, I would administer a dose of Calomel; which the torpid state of the bowels generally requires to be large. The dose may be gr. XX or even half a Drachm. This is to be followed by an infusion of Senna with Salts, or Epsom Salts alone, administered every hour, until several copious evacuations have been obtained. If the stomach be so irritable as to reject the Calomel, a large cathartic enema may be administered. Evacuating the lower part of the intestines

the disead
a bag of
which show
shot as th
Diaphoe
is the in
of Dr. Ch
It does g
it gives
Peritonea
this purp
would a
ies comb
the measu
all the s
done, ep
dency a
I would
three or f
Vesicate
but are to
of the case
Try warm

has a tendency to favour the retention of purgatives afterwards exhibited by the mouth. The Calomel may also have combined with it a little Opium, which here does not tend to constipate. I know that the propriety of active purging in acute Peritonitis, is a matter of dispute. It appears to me however, that, independently of other reasons, the acknowledged utility of the measure in all other cases of Phlegmasia; & the service which it has done in the analogous case of Puerperal Peritonitis, are fully sufficient to warrant us in extending it to the case under consideration. With regard to the use of purging I would adopt here, the rule of Dr. Armstrong: & "so long as there are pain & tension of the abdomen, a quick pulse, & offensive stools, I would steadily proceed." While the bowels were not under the operation of a purgative, I would keep them soluble, by small doses of saline mixture given every two or three hours.

Emollient Enemata will assist in keeping the bowels open; but are useful chiefly as internal fomentations They may consist of warm water, or flaxseed tea.

Warm fomentations are in their immediate effect soothing; & ultimately make a great impression on

large.—

It's check be

the Effervesc

laudanum,

Diet.— c

stage of acu

istic. If

barley-wat

Thus

that are req

its stage o

efforts affo

for, we sh

disease.—

symptoms o

place to dif

Why is the d

in this case

ity. But i

the pneumon

the disease. Among the best are, a bread & milk poultice; a bag of mush; or flannels wrung out of hot water. They should be so large as to cover the abdomen, & as hot as the patient can bear them.

Diaphoretics. next in importance to bloodletting is the inducing of perspiration. In the strong language of Dr. Chapman, this measure often acts like a charm. It does good here by the centrifugal determination which it gives to the blood; thus relieving the vessels of the Peritoneum of a portion of their burthen. For this purpose, I would employ the Vapour Bath; & would assist its action by some one of the Diaphoretics combined with Opium. Previously to depletion, by the measures already recited, Opium would aggravate all the symptoms; but after this has been sufficiently done, it will do good, as well by its diaphoretic tendency as by relieving pain & morbid vigilance. I would employ the Dover's Powder Dose gr. X every three or four hours.

Vesication. Blisters, well-timed are of much advantage; but are too irritating to be employed in the commencement of the case. They should be preceded by copious depletion & by warm fomentations. When applied, they should be

ed however,
g Blisters
should acu
scarcely perc
we should
pression; for
lence of the a
repeated bleed
measures, we
a complete re
pletion. —
tenderness of
ever, & no app
pal shews h
inks, the ste
close. — It cat
House of this c
a very emine
ff present a
of Peritoneal

large.— To relieve irritation of the stomach, & to check bilious vomiting, mucilaginous drinks are advised; & the Effervescing draught, with fifteen or twenty drops of laudanum, if necessary, may be exhibited.

Diet.— It is unnecessary to say that the diet, in the first stage of Acute Peritonitis, ought to be strictly antiphlogistic. It should consist of such articles as toast-water, barley-water, rice-water &c.

Thus have I detailed all the important measures, that are required for the treatment of Acute Peritonitis in its stage of Excitement. It is in this stage only that our efforts afford any prospect of success; & in this stage, therefore, we should bring all our resources to bear upon the disease.— When the pulse sinks, & the other symptoms of Collapse supervene; depletion should give place to diffusible stimulants. The best of these, probably, is the Spirits of Turpentine. Dr. Chapman says that in this case, he has repeatedly seen it of decided utility. But it is necessary to give it in the dose of a ~~table~~ tea spoonful, every two or three hours. It is to be assist-

ed however, with Vol. alkali & Wine; & with Sinapisms & Blisters to the extremities.

Should Acute Peritonitis be marked at its onset, by a pulse scarcely perceptible, & by other signs of extreme prostration; we should consider it as a case, not of exhaustion, but of oppression; for it owes its peculiar character entirely to the violence of the disease. Here, we are first to make use of small, repeated bleedings, the Warm bath, & Diaphoretics. When by these measures, we have roused the energies of the system, & established a complete reaction, we may freely resort to more copious depletion. — Peritonitis sometimes begins with slight tenderness of the abdomen; the pulse scarcely affected; very little fever; & no appearance whatever calculated to alarm. But the sequel shews how insidious is this aspect. For suddenly, the pulse sinks, the strength fails, & the case proceeds rapidly to a fatal close. — A case of this kind occurred last summer in the Alms-House of this city. It was mistaken by the prescribing physician, a very eminent practitioner, for simple constipation. I was myself present at the post mortem examination; when the evidence of Peritoneal inflammation was found to be very satisfactory,

ere are few-
ldi, that fre
much as tha
comparatively
ome of the p
thomas have
pathinon
ome the sta
hat there
hich are appa
idiopathic
found in th
ungrant and
inflammation
ne obscure a
ngin to the
and sometimes
ation of a lu
ith itself
the abdomen
diseases of